

Appln. No.: 10/000,415

Response dated Feb. 28, 2006

Reply to Office action of Sept. 30, 2005

REMARKS

Claims 1-24 are now pending. The Examiner has rejected claims 1-3, 6-9 and 11-16; objected to claims 4, 5, 10, and 17; allowed claims 18-22.

The Examiner has not specified the basis for the objections to claims 4 and 5. However, in a phone call to the Examiner on February 28, 2006, the Examiner indicated that he objected to claims 4 and 5 as being dependent upon a rejected base claim and indicated that claims 4 and 5 would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. Applicants have newly added claims 23 and 24 which correspond to claims 4 and 5, respectively, rewritten in independent form and including all the limitations of their base claims and any intervening claims.

The Examiner has objected to claims 10 and 17 as being dependent upon a rejected base claim and indicated that claims 10 and 17 would be allowable if rewritten in independent form, including all of the limitations of the base claim and any intervening claims. Applicants have previously added claims 21 and 22 which correspond to claims 10 and 17, respectively, rewritten in independent form and including all the limitations of their base claims and any intervening claims. Examiner has indicated allowance of claims 21 and 22.

Allowed Claims

The Examiner has allowed claims 18-22. Applicants acknowledge with appreciation Examiner's allowance of claims 18-22, as set forth in the September 30, 2005 Office Action.

To the extent that the Reasons for Allowance suggest or state that certain limitations not found in the prior art are present in each of the claims 18-22 (whether or not specific language to that effect is actually found in every claim), Applicants note that the record as a whole must supplement the Examiner's stated Reasons for Allowance of claims 18-22. Applicants interpret the Examiner's statements regarding the reasons for allowing claims 18-22 to be only a few of the reasons for allowance of claims 18-22, and that other reasons also exist for allowance of the claims such as, for example, those set forth more completely in the record as a whole, particularly the claims. This interpretation is consistent with MPEP 1302.14, which states that any statement of reasons for allowance "[i]s not intended to necessarily state all the reasons for

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allowance or all the details why claims are allowed and should not be written to specifically or impliedly state all the reasons for allowance are set forth.”

Claim Rejections under 35 U.S.C. § 103(a)

Claims 1, 2 and 3 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vasic (U.S. Patent No. 6,691,263) in view of Merriam Webster's Collegiate Dictionary.

Claim 6 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Vasic in view of Merriam Webster's Collegiate Dictionary as applied to claim 1 and further in view of Olafsson (U.S. Patent No 5,910,959).

Claims 7 and 8 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Vasic in view of Merriam Webster's Collegiate Dictionary as applied to claim 1 and further in view of Tiedemann (U.S. Patent No 5,604,730).

Claim 9 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Vasic in view of Merriam Webster's Collegiate Dictionary with Tiedemann as applied to claim 7 and further in view of Chen (U.S. 5,751,725).

Claims 11, 12, 13, 15 and 16 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen.

Claim 14 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Chen as applied to claim 11 and further in view of Olafsson.

With regard to an obviousness rejection, MPEP 2142 states that in order for a *prima facie* case of obviousness to be established, three basic criteria must be met, one of which is that the reference or combination of references must teach or suggest all the claim limitations. Further, MPEP 2143.01 states that “the mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art suggests the desirability of the combination”, and that “although a prior art device ‘may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so’” (citing *In re Mills*, 916 F. 2d 680, 16 USPQ 2d 1430 (Fed Cir. 1990)). Moreover, MPEP 2143.01 also states that the level of ordinary skill in the art cannot be relied upon to provide the suggestion...,” citing *Al-Site Corp. v. VSI Int'l Inc.*, 174 F. 3d 1308, 50 USPQ 2d. 1161 (Fed

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Cir. 1999) is that the reference or combinations of references must teach or suggest all the claim limitations.

Regarding independent claim 1 and its dependent claims (i.e., claims 2-10), claim 1 recites: "[a] method of impairment mitigation in a communications system comprising: generating at least one error estimate of a signal; determining a channel fidelity metric using the at least one error estimate; and decoding the signal using the channel fidelity metric."

It is respectfully submitted that the referenced art, Vasic in view of Merriam Webster's Collegiate Dictionary, fails to disclose the claimed invention of claim 1. More specifically, for example, the combination of Vasic and Merriam Webster's Collegiate Dictionary fails to disclose generating at least one error estimate of a signal. Instead, Vasic discusses receiving a signal and producing an estimate of the signal (column 6, lines 30-31) and based on the estimate of the signal, producing error event likelihoods (i.e. probability of error) for the estimate of the signal (not the signal itself) and based on prior knowledge of the error (column 6, lines 39-43).

Therefore, Applicants traverse rejection of claim 1 and its dependent claims 2-10 over the proposed combination of references, and Applicants respectfully submit that claims 1-10 are allowable over Vasic in view of Merriam Webster's Collegiate Dictionary.

Regarding independent claim 11 and its dependent claims (i.e., claims 12-17), claim 11 recites: "[a] method of impairment mitigation in a communications system comprising: generating at least one error estimate of a signal received from a channel; determining if the channel is degraded based on the at least one error estimate; erasing a select symbol of the signal if the channel is degraded; and decoding the signal."

It is respectfully submitted that the referenced art, Chen, fails to disclose the claimed invention of claim 11. More specifically, for example, Chen fails to disclose generating at least one error estimate of a received signal that is not yet decoded. Instead, Chen discusses an apparatus in which a transmitter sends a signal to a receiver, the receiver decodes each frame of the received signal based on four rates and then produces four SER values (Abstract). Therefore, in Chen, the signal is decoded and the SER value is then measured and not estimated. Also, Chen fails to disclose erasing a select symbol of the signal if the channel is degraded. Instead, Chen discloses erasing an entire frame (column 9, lines 7-8 and 13-14). Additionally, Applicants respectfully disagree with Examiner's statement that "even if one believes that error estimate is

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estimate is not taught in Chen, it would be obvious for Chen to teach error estimate." Chen teaches a system that determines a rate of transmission of data through a channel, by decoding frames at different rates, measuring the SER value associated with each of the rates and determining the appropriate data rate. The only error values disclosed by Chen are the SER values, which are measured for decoded data frames. Therefore, Chen does not disclose estimating the error of the whole system. Therefore, it cannot be said that "it would be obvious for Chen to teach error estimate."

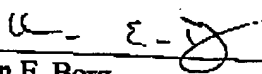
Therefore, Applicants traverse rejection of claim 11 and its dependent claims 12-17 over the cited reference, Chen, and Applicants respectfully submit that claims 11-17 are allowable over Chen.

By this response, claims 23 and 24 are added. Based on at least the foregoing, Applicants believe that claims 1-24 are in condition for allowance. If the Examiner disagrees or has questions regarding this submission, Applicants invite the Examiner to telephone the undersigned at (312) 775-8000.

The Commissioner is hereby authorized to charge additional fees or credit overpayments to the deposit account of McAndrews, Held & Malloy, Account No. 13-0017.

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Respectfully submitted,



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